

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claim 1 (currently amended): A resistor capacitor (RC) tracking loop comprising:  
an integrator charged by at least one buffer for providing a ramped voltage output proportional to a measured RC time constant;  
a comparator for sensing both the ramped voltage output from the integrator and a plurality of reference signals;  
a timer activated by the comparator for counting a time period between predetermined events;  
an accumulator for adjusting at least one component network in a continuous time filter when the timer is outside a predetermined range; and  
wherein the timer is activated when the ramped voltage output from the integrator crosses a first predetermined voltage level and deactivated when the integrator crosses a second predetermined voltage level.

Claim 2 (currently amended): The RC tracking loop as in claim 1, further comprising:  
a transmission-gate for resetting at least one capacitor in the integrator; and  
wherein the integrator is placed into a unity-gain mode for the purpose of sensing [[its[]  
an input offset voltage.

Claim 3 (canceled)

Claim 4 (original): The RC tracking loop as in claim 3, wherein the accumulator is incremented or decremented by the timer.

Claim 5 (original): The RC tracking loop as in claim 3, wherein the component network is used to alter an RC time constant within the continuous time filter.

Claim 6 (original): The RC tracking loop as in claim 1, further comprising:  
offset compensation circuitry for altering the RC time constant between the at least one buffer and integrator.

Claim 7 (original): The RC tracking loop as in claim 1, wherein the at least one buffer and integrator are initialized using a digital controller.

Claim 8 (currently amended): A resistor capacitor (RC) tracking loop used to adjust a continuous time filter in a digital communications system comprising:

a controller;

a buffer supplied with a control signal from the controller;

an integrator for providing a ramp output signal proportional to ~~[[the]]~~ an RC time constant of a charge voltage supplied from the buffer;

a comparator for comparing the ramp output signal and a multiplexed voltage reference signal;

a timer activated by the [single] comparator;

an accumulator controlled by the timer which is incremented or decremented based upon whether a timer count falls within a predetermined range; and

wherein the timer is started and stopped based upon the ramp output signal crossing a plurality of threshold levels.

Claim 9 (canceled)

Claim 10 (currently amended): An RC tracking loop as in claim 9, wherein the accumulator controls a tuning network in a continuous time filter for adjusting continuous time filter [parameters] RC time constants.

Claim 11 (original): An RC tracking loop as in claim 8, wherein the comparator cancels out comparator delay and offset.

Claim 12 (currently amended): An RC tracking loop as in claim 10, wherein [[the]] an offset compensation circuit is switched in series between the buffer and integrator for canceling input offsets of both the buffer and integrator.

Claim 13 (original): An RC tracking loop as in claim 10, wherein the multiplexed voltage reference signal is comprised of a substantially low reference voltage ( $V_{REFLO}$ ) and a substantially high reference voltage ( $V_{REFHI}$ ).

Claim 14 (currently amended): A method for adjusting a continuous time filter using an RC tracking loop comprising the steps of:

- charging an integrator in the RC tracking loop using at least one buffer;
- providing a ramped output voltage from the integrator that is proportional to the RC time constant [of charge from the buffer] used in the RC tracking loop;
- comparing the ramped output voltage from the integrator with a first predetermined reference voltage;
- initiating a timer when the ramped output voltage crosses the first predetermined reference voltage;
- stopping the timer when the ramped output voltage crosses a second predetermined reference voltage;
- measuring a time count for determining if the timer counter is within a predetermined range;
- resetting a buffer and integrator if the timer count is within a predetermined range; and

adjusting an accumulator if the timer count is outside the predetermined range.

Claim 15 (currently amended): A method for adjusting a continuous time filter as in claim 14, further comprising the step of:

adjusting ~~[[the]]~~ a value of a tuning network in the continuous time filter based upon an incremented or decremented value in the accumulator.